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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/685,407

**Applicant(s)**

YOOK, HYUNGYOO

**Examiner**

Qing Chen

**Art Unit**

2191

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 July 2009.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 9-14 and 16 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 9-14 and 16 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-8508)  
Paper No(s)/Mail Date \_\_\_\_\_  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. This Office action is in response to the amendment filed on July 1, 2009.
2. **Claims 9-14 and 16** are pending.
3. **Claims 10, 13, and 16** have been amended.
4. **Claims 1-8, 15, and 17-30** have been canceled.
5. The objections to Claims 1-4, 6-8, 10, and 18 are withdrawn in view of Applicant's amendments to the claims or cancellation of the claims. However, Applicant's amendments to Claim 16 fail to address the objection due to improper antecedent basis. Accordingly, this objection is maintained and further explained hereinafter.
6. The 35 U.S.C. § 112, second paragraph, rejections of Claims 13, 14, 17-21, and 23 are withdrawn in view of Applicant's amendments to the claims or cancellation of the claims.

***Response to Amendment***

***Claim Objections***

7. **Claim 16** is objected to because of the following informalities:
  - **Claim 16** recites the limitation "the new application." Applicant is advised to change this limitation to read "the new application file" for the purpose of providing it with proper explicit antecedent basis.Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. **Claim 16** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

**Claim 16** recites the limitation “the new application file.” There is insufficient antecedent basis for this limitation in the claim. In the interest of compact prosecution, the Examiner subsequently interprets this limitation as reading “a new application file” for the purpose of further examination.

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. **Claims 9, 10, 12-14, and 16** are rejected under 35 U.S.C. 103(a) as being unpatentable over US 2002/0073244 (hereinafter “**Davies**”) in view of WO 02/09350 (hereinafter “**Moonen**”).

As per **Claim 9**, Davies discloses:

- a framework capable of providing integrated support to a variety of home network middleware is loaded on the application server (see Paragraph [0035], “The HAVi stack 426 includes a device manager. As the FAV finds new devices coupled to the HAVi network 400, the device manager creates a device control module for each new device. These device control modules (DCMs) 424 are instantiated for all the devices on the HAVi network 400. The DCMs 424 allow the HAVi network 400 to interface with each HAVi compliant device and IP device DCMs 422 allow the HAVi network 400 to interface with each IP device.”); and

- one of the plurality of controlled devices controls the application server and performs installation and management of applications for the plurality of controlled devices (see Paragraph [0028], “In FIG. 2, a block diagram of one embodiment of an IP device 230 integrated into a HAVi network 200 is shown. The HAVi network 200 includes an IP and HAVi compliant device, i.e., an FAV, acting as a controller 210. The controller 210 runs a server 212 and includes HAVi software and APIs 214.”; Paragraph [0029], “In an alternative embodiment, an IP device may control the FAV or LAV device as well as other HAVi compliant devices coupled to a HAVi network.”; Paragraph [0035], “The HAVi stack 426 includes a device manager. As the FAV finds new devices coupled to the HAVi network 400, the device manager creates a device control module for each new device. These device control modules (DCMs) 424 are instantiated for all the devices on the HAVi network 400. The DCMs 424 allow the HAVi network 400 to interface with each HAVi compliant device and IP device DCMs 422 allow the HAVi network 400 to interface with each IP device.”),

- wherein the one of the plurality of controlled devices controls the plurality of controlled devices in response to the installed applications (see Paragraph [0029], “In an

*alternative embodiment, an IP device may control the FAV or IAV device as well as other HAVi compliant devices coupled to a HAVi network.”; Paragraph [0030], “The IP DCM is a logical representation of the IP device 230 that provides an API used to send control commands to the IP device 230 by the server 212 on the controller 210.”),*

- wherein each of the plurality of controlled devices includes a home network middleware module for communicating with the application server (see Paragraph [0030], “The IP device 230 has IP and HAVi APIs 232 that provide API support to translate and relay calls between the server 212 and the IP device 230. The HAVi compliant devices 220 communicate with the server 210 by using HAVi APIs 222 and communicating via a communication medium such as the IEEE 1394 network.”).

However, Davies does not disclose:

- wherein each of the plurality of controlled devices includes an application management module for installing a new application or managing an already installed application by controlling the application server.

Moonen discloses:

- an application management module for installing a new application or managing an already installed application by controlling an application server (see Figure 1: 120, 122, and 128; Page 5: 26-28, “Bridge 118 comprises a software component 122, referred to as Installation Manager, that handles the installation of further software components needed to integrate B-device 116 into system 100.”; Page 7: 4-8, “Next, assume that a matching translation module 128 has been found it is downloaded to the bridge, installed on platform 120 and registered in accordance with the protocol of standard A. This enables other applications

*and devices of A-cluster 102 to discover and use device 116 through module 128. The installation and registering of module 128 may be postponed until after it has been run on the execution environment of bridge 118.”).*

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Moonen into the teaching of Davies to modify Davies’ invention to include wherein each of the plurality of controlled devices includes an application management module for installing a new application or managing an already installed application by controlling the application server. The modification would be obvious because one of ordinary skill in the art would be motivated to automate the installations of application files downloaded from a central server to the controlled devices without requiring a user having to manually perform the installations.

As per **Claim 10**, the rejection of **Claim 9** is incorporated; and Davies further discloses:

- wherein the variety of home network middleware is selected from a group consisting of HAVi and HWW (*see Paragraph [0021], “The system includes a HAVi network with a plurality of devices connected to the HAVi network via a IEEE 1394 bus. A number of internet protocol devices are communicating and operating with the HAVi network via an IP protocol.”*).

As per **Claim 12**, the rejection of **Claim 9** is incorporated; however, Davies does not disclose:

- wherein an application file is stored in a file server on the Internet.

Moonen discloses:

- wherein an application file is stored in a file server on the Internet (*see Page 2: 30-33, "... the inventors propose a solution wherein a bridge is connected to a server, e.g., on the Internet. This server offers a lookup service for some set of standards, and allows a bridge to locate and download the appropriate translation modules for use in the home network."*).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Moonen into the teaching of Davies to modify Davies' invention to include wherein an application file is stored in a file server on the Internet. The modification would be obvious because one of ordinary skill in the art would be motivated to automate the downloading of application files from a central server to the controlled devices without requiring a user having to manually locate the application files.

As per **Claim 13**, the rejection of **Claim 12** is incorporated; and Davies further discloses:

- wherein the application server includes a home network middleware module for communicating with the plurality of controlled devices (*see Paragraph [0028], "The controller 210 runs a server 212 and includes HAVi software and APIs 214."*).

However, Davies does not disclose:

- wherein the application server includes an application loader module for downloading the application file from the file server under the control of the one of the plurality of controlled devices, and an application platform service module for controlling operations of the home network middleware module and the application loader module under the control of the one of the plurality of controlled devices.

Moonen discloses:



- an application loader module for downloading an application file from a file server, and an application platform service module for controlling operations of a home network middleware module and the application loader module (see Figure 1: 120, 122, and 128; Page 5: 26-28, “Bridge 118 comprises a software component 122, referred to as Installation Manager, that handles the installation of further software components needed to integrate B-device 116 into system 100.”; Page 10: 3-7, “A next step 304 involves listening and reacting on the UPnP device announcement message. In step 306, the device description document of printer 206 is retrieved from the URL embodied in the announcement message, and the document is sent to bridge server 222 using HTTP POST.”).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Moonen into the teaching of Davies to modify Davies’ invention to include wherein the application server includes an application loader module for downloading the application file from the file server under the control of the one of the plurality of controlled devices, and an application platform service module for controlling operations of the home network middleware module and the application loader module under the control of the one of the plurality of controlled devices. The modification would be obvious because one of ordinary skill in the art would be motivated to utilize a main controlling device to automate the downloading of application files from a central server to the controlled devices without requiring a user having to manually locate the application files.

As per **Claim 14**, the rejection of **Claim 13** is incorporated; however, Davies does not disclose:

- wherein the home network middleware module and the application loader module of the application server are bundled into the framework.

Moonen discloses:

- wherein a home network middleware module and an application loader module of an application server are bundled into a framework (see Figure 1: 118, 120, and 122; Page 5: 24-28, "... bridge 118 detects B-device 116 as a new addition, either because bridge 118 scans B-cluster 110 or its registry/directory/look-up service (not shown) periodically or because B-cluster 110 actively notifies bridge 118. Bridge 118 comprises a software component 122, referred to as Installation Manager, that handles the installation of further software components needed to integrate B-device 116 into system 100." and 34 to Page 6: 1-4, "Similarly, Installation Manager 122 receives or retrieves information descriptive of newly added B-device 116. The descriptive information is possibly reformatted before being sent to a bridge server 124 via the Internet 126. In addition, bridge 118 preferably provides information about the local execution environment of home network 100. This information is relevant to the software components that server 124 downloads onto bridge 118."; Page 7: 4-8, "Next, assume that a matching translation module 128 has been found it is downloaded to the bridge, installed on platform 120 and registered in accordance with the protocol of standard A. This enables other applications and devices of A-cluster 102 to discover and use device 116 through module 128. The installation and registering of module 128 may be postponed until after it has been run on the execution environment of bridge 118.").

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Moonen into the teaching of Davies to modify

Davies' invention to include wherein the home network middleware module and the application loader module of the application server are bundled into the framework. The modification would be obvious because one of ordinary skill in the art would be motivated to automate the downloading of application files from a central server framework to the controlled devices.

As per **Claim 16**, the rejection of **Claim 9** is incorporated; however, Davies does not disclose:

- wherein the application management module determines a location where a new application file is downloaded and then requests the application server to install the new application file.

Moonen discloses:

- wherein an application management module determines a location where a new application file is downloaded and then requests an application server to install the new application file *(see Page 7: 4-8, "Next, assume that a matching translation module 128 has been found it is downloaded to the bridge, installed on platform 120 and registered in accordance with the protocol of standard A. This enables other applications and devices of A-cluster 102 to discover and use device 116 through module 128. The installation and registering of module 128 may be postponed until after it has been run on the execution environment of bridge 118.")*.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Moonen into the teaching of Davies to modify Davies' invention to include wherein the application management module determines a location

where a new application file is downloaded and then requests the application server to install the new application file. The modification would be obvious because one of ordinary skill in the art would be motivated to automate the downloading and installations of application files from a central server to the controlled devices without requiring a user having to manually locate the application files and perform the installations.

12. **Claim 11** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Davies** in view of **Moonen** as applied to Claim 9 above, and further in view of **US 7,058,719 (hereinafter “Motoyama”)**.

As per **Claim 11**, the rejection of **Claim 9** is incorporated; however, Davies and Moonen do not disclose:

- wherein the framework is an OSGi framework.

Motoyama discloses:

- wherein a framework is an OSGi framework (*see Column 1: 31-37, “With such a large number of sophisticated electronic devices in our home and workplace, there has been recognized a need to manage such equipment. For example, the Open Services Gateway Initiative (OSGI) is an industry initiative to provide the technology to allow management of localized electronics equipment by use of an external service provider.”*).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Motoyama into the teaching of Davies to modify Davies’ invention to include wherein the framework is an OSGi framework. The

modification would be obvious because one of ordinary skill in the art would be motivated to allow management of localized electronics equipment by use of an external service provider (*see Motoyama – Column 1: 31-37*).

***Response to Arguments***

13. Applicant's arguments filed on July 1, 2009 have been fully considered, but they are not persuasive.

***In the Remarks, Applicant argues:***

a) Here, the Examiner is relying on a "software component", i.e., the installation manager 122 located on the bridge 118. Moonen discloses that this installation manager 122 merely functions to receive or retrieve information descriptive of newly added devices. (See p. 5, line 31 through p. 6, line 1.). However, this information is ultimately loaded on a platform 120 located on bridge 118. (See p. 7, lines 4-8). Consequently, there is no basis for including this installation manager on a controlled device. Rather, this installation manager functions to gather information to allow communication via the bridge 118. Also, the information gathered is utilized by the bridge and stored on the bridge 118. There is simply no reason to include the installation manager 122 on a controlled device.

***Examiner's response:***

a) Examiner disagrees. With respect to the Applicant's assertion that there is simply no reason to include Moonen's installation manager on a controlled device, as previously pointed

out in the Non-Final Rejection (mailed on 04/02/2009) and further clarified hereinafter, the Examiner respectfully submits that the combination of Davies and Moonen clearly discloses “wherein each of the plurality of controlled devices includes an application management module for installing a new application or managing an already installed application by controlling the application server.” Note that Davies discloses a plurality of controlled devices (*see Paragraph [0021], “The system includes a HAVi network with a plurality of devices connected to the HAVi network via a IEEE 1394 bus. A number of internet protocol devices are communicating and operating with the HAVi network via an IP protocol.”*). Further note that Davies also discloses “wherein each of the plurality of controlled devices includes a home network middleware module for communicating with the application server” (*see Paragraph [0030], “The IP device 230 has IP and HAVi APIs 232 that provide API support to translate and relay calls between the server 212 and the IP device 230. The HAVi compliant devices 220 communicate with the server 210 by using HAVi APIs 222 and communicating via a communication medium such as the IEEE 1394 network.”*). Those of ordinary skill in the art would readily comprehend that Davies’ controlled devices include software programs (e.g., APIs) for providing various functionalities. Moonen discloses a bridge device including an application management module for installing a new application or managing an already installed application by controlling an application server (*see Figure 1: 120, 122, and 128; Page 5: 26-28, “Bridge 118 comprises a software component 122, referred to as Installation Manager, that handles the installation of further software components needed to integrate B-device 116 into system 100.”; Page 7: 4-8, “Next, assume that a matching translation module 128 has been found it is downloaded to the bridge, installed on platform 120 and registered in accordance with the protocol of standard A. This enables other*

*applications and devices of A-cluster 102 to discover and use device 116 through module 128. The installation and registering of module 128 may be postponed until after it has been run on the execution environment of bridge 118.”).* Thus, in view of the teaching of Moonen, one of ordinary skill in the art would be motivated to include an application management module in Davies’ controlled devices in order to automate the installations of application files downloaded from a central server to the controlled devices without requiring a user having to manually perform the installations.

Therefore, for at least the reason set forth above, the rejection made under 35 U.S.C. § 103(a) with respect to Claim 9 is proper and therefore, maintained.

### ***Conclusion***

14. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

15. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Qing Chen whose telephone number is 571-270-1071. The Examiner can normally be reached on Monday through Thursday from 7:30 AM to 4:00 PM. The Examiner can also be reached on alternate Fridays.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Wei Zhen, can be reached on 571-272-3708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2100 Group receptionist whose telephone number is 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Q. C./

Examiner, Art Unit 2191

/Wei Y Zhen/

Supervisory Patent Examiner, Art Unit 2191